UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/531,105	03/17/2000	Shinkichi Gama	1614.1040	5186

21171 7590 11/13/2003

STAAS & HALSEY LLP
SUITE 700
1201 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER	
VAUGHAN, MICHAEL R	
ART UNIT	**PAPER NUMBER**
2131	4

DATE MAILED: 11/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PRG

Office Action Summary	Application No.	Applicant(s)	
	09/531,105	GAMA ET AL.	
	Examiner	Art Unit	
	Michael R Vaughan	2131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 March 2000* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 March 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claims 1-9 have been examined and are pending.

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC ' 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3 and 5-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ha (USP 5,406,519) in view of Schwarz (USP 5,293,610).

As per claim 1, Ha teaches:

A storage device for maintaining information when power is OFF comprising (see column 2, lines 10-30):

an instruction part sending a read out instruction for instructing a memory storing secret data to read out data (see column 2, lines 10-30);

a decoding part decoding whether or not the data read out by the memory in response to the data reading instruction is the secret data stored in the memory (see column 2, lines 10-30);

a maintaining part maintaining information in a volatile state resulting from the decoding part (see FIG 2, element 7).

Ha is silent in expressly disclosing a test terminal inputting the test signals and a cutting-off part cutting off the test signals input from the test terminal when the maintaining part maintains information indicating that the secret data is stored. Schwarz teaches a test terminal inputting the test signals and a cutting-off part cutting off the test signals input from the test terminal when the maintaining part maintains information indicating that the secret data is stored (see column 2, lines 43-64). Having protection against a test signal greatly improves the security of the device and more importantly the security of the data stored by the device. Therefore, it would be advantageous have a test terminal whereby the system can be checked but at the same time, protect the content of the memory when testing the device. This prevents unauthorized users from gaining access to sensitive data if he/she is able to get access through a test mode. A test terminal would clearly add to the overall security of Ha's device. Also, the device of Ha would be better able to have a debug mode to insure quality control with the addition of a test terminal.

In view of this, it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the teaching of Schwarz within the system of Ha because test modes are useful and protection during such modes is necessary in order to prevent sensitive data from being stolen. One skilled in the art would have been motivated to generate the claimed invention with a reasonable expectation of success.

As per claim 2, Ha teaches said read out instruction sent by said instruction part is a secret data read out instruction for instructing the memory storing secret data to read out the secret data (see column 2, lines 10-30).

As per claim 3, Ha teaches read out instruction sent by said instruction part is a data read out instruction for instructing the memory storing secret data to read out all data stored in the memory other than working data (see column 2, lines 10-30).

As per claim 5, Ha teaches instruction part sends the read out instruction when the power is ON (see column 2, lines 10-30).

As per claim 6, Ha teaches instruction part sends the read out instruction when the memory is reset (see column 2, lines 10-30).

As per claim 7, Ha teaches instruction part sends the read out instruction when a command for operating secret data is made (see column 2, lines 10-30).

As per claim 8, Ha teaches a storage device for maintaining information when power is OFF comprising (see column 2, lines 10-30):

a decoding part gathering a set of data read out by a memory storing secret data in response to an access request and decoding based on the set of data whether or not the secret data is stored (see column 2, lines 10-30);

a maintaining part maintaining information in a volatile state resulting from the decoding part (see FIG 2, element 7).

Ha is silent in expressly disclosing a test terminal inputting the test signals and a cutting-off part cutting off the test signals input from the test terminal when the maintaining part maintains information indicating that the secret data is stored. The examiner supplies the same rationale for the motivation as recited in the rejection of claim 1 to incorporate the teachings of Schwarz within the system of Ha.

As per claim 9, Ha teaches a storage device for maintaining information when power is OFF comprising a maintaining part maintaining, in a volatile state, information indicating that an access request is conducted to a memory storing secret data (see column 2, lines 10-30). Ha is silent in expressly disclosing a test terminal inputting the test signals and a cutting-off part cutting off the test signals input from the test terminal when the maintaining part maintains information indicating that the secret data is stored. The examiner supplies the same rationale for the motivation as recited in the rejection of claim 1 to incorporate the teachings of Schwarz within the system of Ha.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ha and Schwarz as applied to claim 1 above, and further in view of Guttag (USP 4,521,852).

As per claim 4, the combined teaching of Ha and Schwarz are silent in expressly disclosing read out instruction sent by said instruction part is a data read out instruction for instructing the memory storing secret data to read out data indicating a presence of the secret data stored in an area that is not for the secret data. Having the ability to monitor whether or not secret data resides in unprotected memory is very advantageous to the system and subsequently can prevent secret data from being stolen. Guttag teaches read out instruction sent by said instruction part is a data read out instruction for instructing the memory storing secret data to read out data indicating a presence of the secret data stored in an area that is not for the secret data (see column 6, lines 15-68). It would be undesirable to have a device that prevented the reading of memory but could not recognize if the secret data had been some how written to memory that was not protected in the same way. The security of the system would then be null and void. Therefore, it is very evident that one skilled in the art would design procedures to monitor where the secret data is stored in a system in which the memory is safeguarded. The teachings of Guttag would enable more security to the system of Ha and Schwarz. The addition of another level of security greatly improves the system's ability to protect its secret data.

In view of this, it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the teaching of Guttag within the combined system of Ha and Schwarz because monitoring the device's memory for the presence of secret data in an area that is not protected would allow greater protection over the secret data. It would have been obvious to one of ordinary skill to incorporate memory-monitoring schemes within a device designed primarily to protect memory from being read by unauthorized users. One skilled in the art would have been motivated to generate the claimed invention with a reasonable expectation of success.

Remarks

No claim is allowed.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patents:

5,394,367 Downs et al.

5,465,341 Doi et al.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael R Vaughan whose telephone number is 703-305-0354. The examiner can normally be reached on M-F 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 703-305-9648. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

MV
Michael R Vaughan
Examiner
Art Unit 2131

AYAZ SHEIKH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100